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JUL 27 1992

Federal Communications Commission Office of the Secretary

ENGINEERING STATEMENT

JOINT COVERAGE STUDY MM DOCKET NO. 92-33

JAIGHAL FILE

The engineering data contained herein have been prepared on behalf of the five remaining mutually exclusive applicants in MM Docket No. 92-33, who propose to provide new noncommercial FM service on Channel 202 in various communities near Orlando, Florida. The application data are tabulated in Figure 1.

Figure 2 shows the five transmitter sites and the five predicted 60 db μ contours. Figure 3 contains the same information plus the 60 db μ contours of other noncommercial FM stations serving the area of interest. Figure 4 is a tabulation of other services included in the study, and Figure 5 includes tabulations of population and area data for each applicant. Also included in Figure 5 is a tabulation of data for the commonly served area.

Each applicant's 60 db μ contour was calculated independently, based upon the proposed station's effective radiated power (ERP) and antenna radiation center above mean sea level. The National Geophysical Data Center's 30-second terrain data base was used to determine each station's height above average terrain along the standard eight radials. Contour distances were then determined by computer, taking into account the station's proposed ERP along each azimuth. The contours of the other stations presently providing service to the area were likewise calculated. Land area within each proposed contour was determined by polar planimeter

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and applying the appropriate map scale factor.

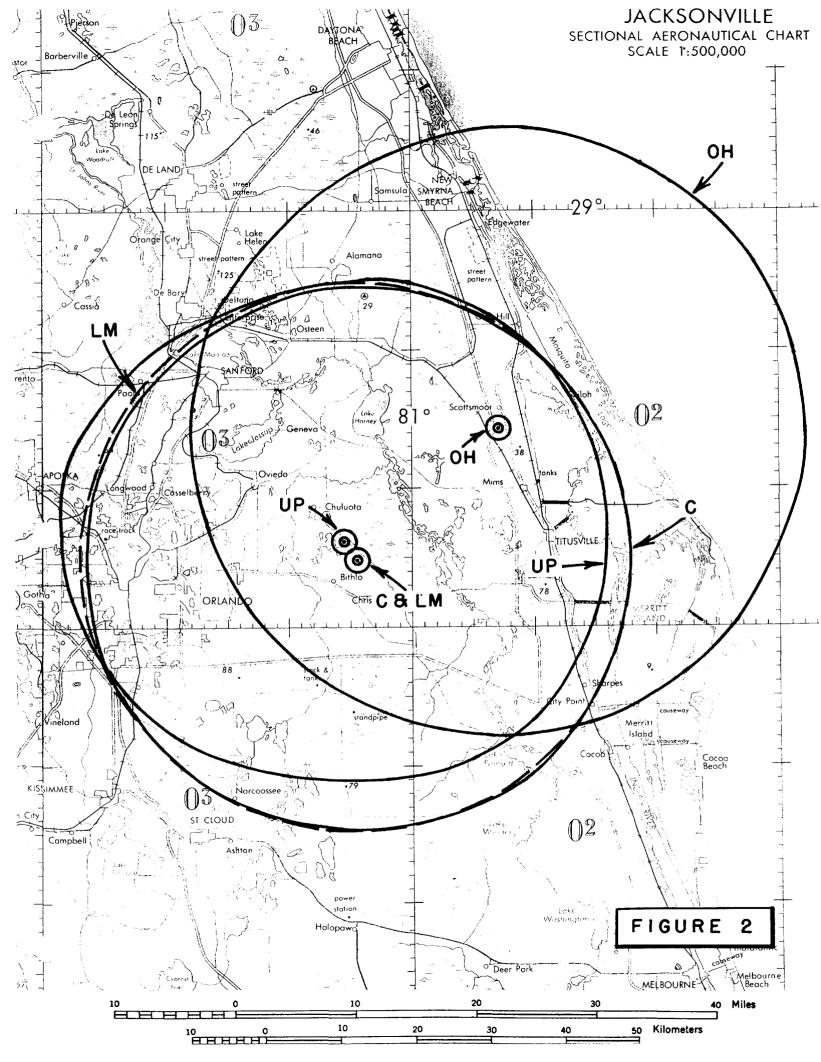
Population figures are based upon the 1980 U. S. Census. Contours were transferred onto U. S. Census Minor Civil Division (MCD) maps, and population data were derived therefrom, assuming uniform population distribution within urbanized and non-urbanized portions of MCDs.

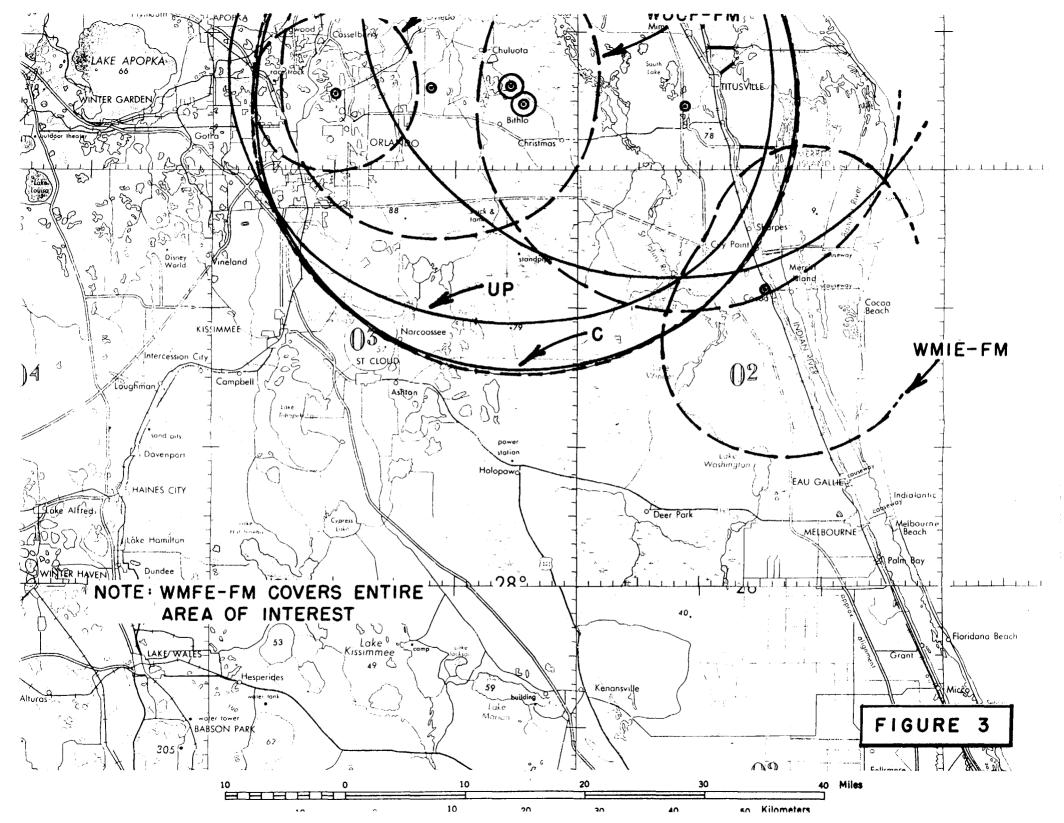
FIGURE 1

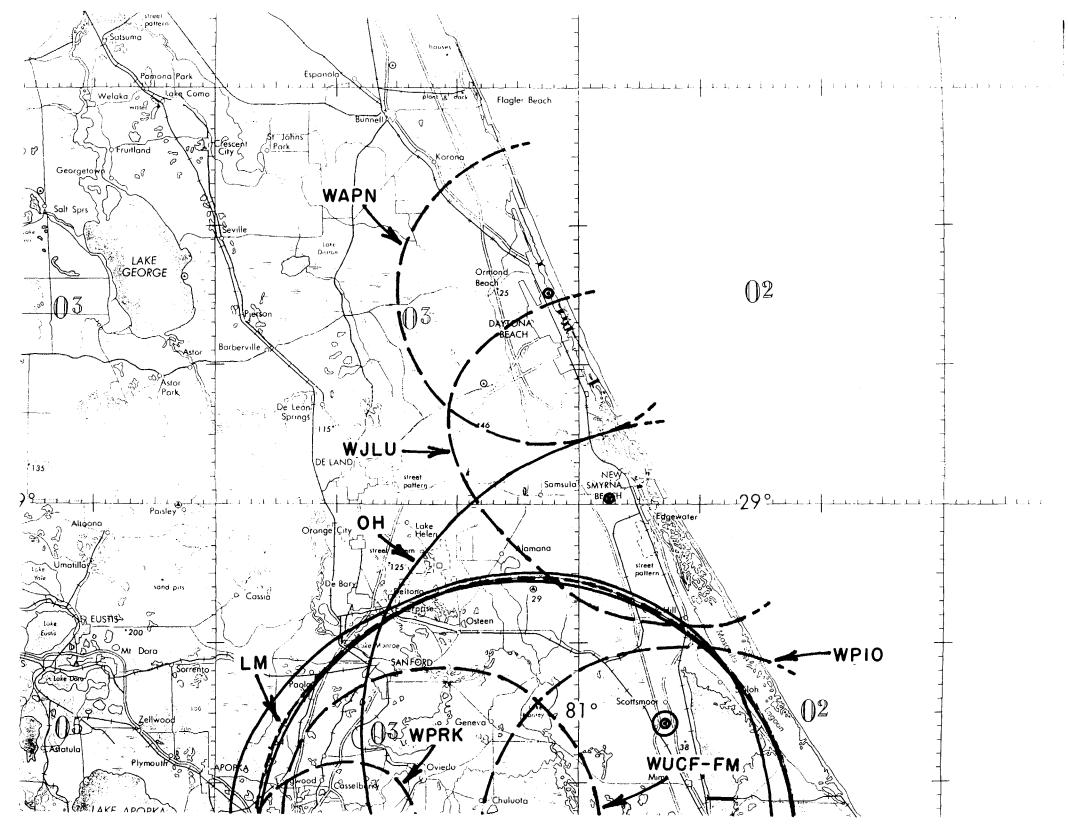
APPLICANTS IN MM DOCKET No. 92-33

| | | | <u>Facilities</u> | | |
|---|-------------|--------------------|-------------------|---------------|-------------|
| | Map | | Power | <u>Height</u> | AAT |
| Applicant | <u>Code</u> | <u>File Number</u> | <u>(kw)</u> | <u>meters</u> | <u>feet</u> |
| Bible Broadcasting Network, Inc.; Channel 202C2; Conway, Florida | C* | BPED-890412MJ | 1.9 | 300 | 984 |
| Central Florida Educational Foundation, Inc.; Chan- nel 202C3; Union Park, Florida | UP | BPED-881207MA | 0.95 (DA) | 448 | 1470 |
| Hispanic Broadcast System, Inc.; Channel 202C3; Lake Mary, Florida | LM | BPED-891128ME | 1.9 | 306 | 1004 |
| Mims Community Radio, Inc.; Channel 202Cl; Oak Hill, Florida | ОН | BPED-891127MD | 80.0 | 61 | 200 |
| Southwest Florida Community Radio, Inc.; Channel 202C2; Conway, Florida | C* | BPED-891127MC | 1.9 | 300 | 984 |

^{*} The facilities specified by Bible Broadcasting Network, Inc., and Southwest Florida Community Radio, Inc., are identical.







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FIGURE 4

OTHER NONCOMMERCIAL FM SERVICES INCLUDED IN STUDY

| <u>Channel</u> | <u>Call Sign</u> | City of License | Power <u>(kw)</u> | Antenna Height <u>(ft. AAT)</u> |
|----------------|------------------|------------------------|----------------------|---------------------------------------|
| 214C1 | WMFE-FM | Orlando, Fla. | 100 | 732 |
| 210C3 | WUCF-FM | Orlando, Fla. | 7.9 | 161 |
| 218A | WPRK | Winter Park, Fla. | 1.3 | 89 |
| 207C3 | WPIO | Titusville, Fla. | 7.0 | 299 |
| 218C3 | WMIE-FM | Cocoa, Fla. | 20.0 | 98 |
| 209A | WJLU | New Smyrna Beach, Fla. | 5.0 | 328 |
| 218A | WAPN | Holly Hill, Fla. | 1.8 | 285 |

FIGURE 5-A

BIBLE BROADCASTING NETWORK, INC. CHANNEL 202C2 - CONWAY, FLORIDA

| | Area | | ea |
|-----------------------------|-------------------|-----------|-----------|
| | <u>Population</u> | (sq. km.) | (sq. mi.) |
| No other services | 0 | 0 | 0 |
| One other service | 126,141 | 1,163 | 449 |
| Two other services | 184,291 | 1,732 | 669 |
| Three other services | 215,429 | 816 | 315 |
| Four other services | 0 | 0 | 0 |
| Five or more other services | 0 | 0 | 0 |
| Area common to all | 87,287 | 2,406 | 929 |
| Area not common to all | 438,574 | 1,305 | 504 |
| TOTAL | 525,861 | 3,711 | 1,433 |

FIGURE 5-B

CENTRAL FLORIDA EDUCATIONAL FOUNDATION, INC. CHANNEL 202C3 - UNION PARK, FLORIDA

| | | Area | |
|-----------------------------|-------------------|------------------|------------------|
| | <u>Population</u> | <u>(sq. km.)</u> | <u>(sq. mi.)</u> |
| No other services | 0 | 0 | 0 |
| One other service | 184,775 | 1,090 | 421 |
| Two other services | 184,565 | 1,870 | 722 |
| Three other services | 212,472 | 728 | 281 |
| Four other services | 0 | 0 | 0 |
| Five or more other services | 0 | 0 | 0 |
| Area common to all | 87,287 | 2,406 | 929 |
| Area not common to all | 494,525 | 1,282 | 495 |
| TOTAL | 581,812 | 3,688 | 1,424 |

FIGURE 5-C

HISPANIC BROADCAST SYSTEM, INC. CHANNEL 202C3 - LAKE MARY, FLORIDA

| | | Area | |
|-----------------------------|-------------------|-----------|------------------|
| | <u>Population</u> | (sq. km.) | <u>(sq. mi.)</u> |
| No other services | 0 | 0 | 0 |
| One other service | 138,791 | 1,225 | 473 |
| Two other services | 184,552 | 1,847 | 713 |
| Three other services | 216,196 | 834 | 322 |
| Four other services | 0 | 0 | 0 |
| Five or more other services | 0 | 0 | 0 |
| | | | |
| Area common to all | 87,287 | 2,406 | 929 |
| Area not common to all | 452,252 | 1,500 | 579 |
| | | | |
| TOTAL | 539,539 | 3,906 | 1,508 |

FIGURE 5-D

MIMS COMMUNITY RADIO, INC. CHANNEL 202C1 - OAK HILL, FLORIDA

| | _ | Area | |
|-----------------------------|-------------------|------------------|------------------|
| | <u>Population</u> | <u>(sq. km.)</u> | <u>(sq. mi.)</u> |
| No other services | 0 | 0 | 0 |
| One other service | 23,241 | 554 | 214 |
| Two other services | 129,390 | 2,279 | 880 |
| Three other services | 31,670 | 635 | 245 |
| Four other services | 0 | 0 | 0 |
| Five or more other services | 0 | 0 | 0 |
| | | | · |
| Area common to all | 87,287 | 2,406 | 929 |
| Area not common to all | 97,014 | 1,062 | 410 |
| TOTAL | 184,301 | 3,468 | 1,339 |

FIGURE 5-E

SOUTHWEST FLORIDA COMMUNITY RADIO, INC. CHANNEL 202C2 - CONWAY, FLORIDA

| | | Area | |
|-----------------------------|-------------------|-----------|------------------|
| | <u>Population</u> | (sq. km.) | <u>(sq. mi.)</u> |
| No other services | 0 | 0 | 0 |
| One other service | 126,141 | 1,163 | 449 |
| Two other services | 184,291 | 1,732 | 669 |
| Three other services | 215,429 | 816 | 315 |
| Four other services | 0 | 0 | 0 |
| Five or more other services | 0 | 0 | 0 |
| | | | • |
| Area common to all | 87,287 | 2,406 | 929 |
| Area not common to all | 438,574 | 1,305 | 504 |
| TOTAL | 525,861 | 3,711 | 1,433 |

FIGURE 5-F

POPULATION AND AREA DATA COMMON AREA

| | Area | | ea |
|-----------------------------|-------------------|------------------|------------------|
| | <u>Population</u> | <u>(sq. km.)</u> | <u>(sq. mi.)</u> |
| No other services | 0 | 0 | 0 |
| One other service | 7,215 | 376 | 145 |
| Two other services | 74,245 | 1,561 | 603 |
| Three other services | 5,827 | 469 | 181 |
| Four other services | 0 | 0 | 0 |
| Five or more other services | 0 | 0 | 0 |
| TOTAL | 87,287 | 2,406 | 929 |

DECLARATION

I declare under penalty of perjury that:

- 1. I am a broadcasting consultant practicing in the City of Washington, District of Columbia; I am an associate of the firm of Smith and Powstenko; and my qualifications are a matter of record before the Federal Communications Commission.
- 2. The firm of Smith and Powstenko has been retained by the five remaining mutually exclusive applications for a new noncommercial FM station to operate on Channel 202 in central Florida to prepare a study of comparative coverage for purposes of the record in MM Docket No. 92-33.
- 3. The foregoing statements and the attached Engineering
 Statement and associated exhibits, which were prepared by me or under my
 immediate supervision, are true and correct to the best of my knowledge and
 belief.

KEVIN T. FISHER

June 8, 1992